

REMARKS

Summary of the Invention and Pending Claims

The present invention relates to water soluble associative polymers and compositions comprising them, which further comprise an alkali metal salt of a carboxylic acid. Claims 1-27, 31-35, and 38-40 are pending in the application. Claims 14-27, 31-35, 37, 39 and 40 are allowed. Claims 1-11 are rejected and claims 12-13 are objected to. Applicants request reconsideration of the claim rejections and objections and reexamination of the application in light of the following comments.

Claims 1-9 and 11 are Patentable over La Combe

The Examiner has rejected the above-identified claims under 35 U.S.C. §102(b) as being anticipated by La Combe (U.S. Patent No. 3,332,904). The rejection is respectfully traversed.

In paragraph 3 of the Office Action, the Examiner states that La Combe teaches a water soluble polymer which is formed in the presence of sodium acetate, wherein the polymer comprises AMPS or 2-acrylamidohexane sulfonate, butyl or ethyl acrylate, and acrylonitrile. The Examiner asserts that such a polymer would have similar solubility properties to the present invention, stating that it comprises the same monomeric species.

Applicants respectfully disagree. Claim 1 recites a composition comprising a water soluble associative polymer having functionality including at least sulfonate groups, carboxylate groups, and hydrophobes associative with one another in a saturated aqueous solution of an alkali metal salt of a carboxylic acid. The composition further comprises an alkali metal salt of a carboxylic acid.

By comparison, La Combe describes the preparation of a water soluble interpolymer composed of about 8-20 mole percent of an acrylamidoalkylsulfonate, about 65-80 mole percent of acrylonitrile or methacrylonitrile, and about 10-20 mole percent of an alkyl acrylate

or methacrylate ester (see the Abstract). There is no disclosure that the polymer includes carboxylate groups. Thus, while Example 1 of La Combe shows that a salt of a carboxylic acid is present, the polymer of La Combe is not the same as the polymer of the present invention.

Applicant therefore believes that claim 1 is not anticipated by La Combe. Claims 2-9 and 11, which depend either directly or indirectly from claim 1, recite further embodiments of the present invention and, for at least the reasons discussed above, are also not anticipated by La Combe.

Therefore, Applicant believes that claims 1-9 and 11 are not anticipated by La Combe and respectfully requests that this rejection be withdrawn.

Claims 1 and 10 are Patentable over La Combe

Claims 1 and 10 are rejected under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being obvious over La Combe (U.S. Patent No. 3,332,904). The rejection is respectfully traversed.

In paragraph 5 of the Office Action, the Examiner states that La Combe teaches a water soluble polymer which is formed in the presence of sodium acetate, wherein the polymer comprises AMPS or 2-acrylamidohexane sulfonate, butyl or ethyl acrylate, and acrylonitrile. The Examiner acknowledges that La Combe differs from the present invention in that the specific molecular weight of the polymers formed by the process of the examples is not disclosed, but presents the position that, to the extent the molecular weights of the formed polymers are within the scope of claim 10, then such is anticipated. The Examiner, further acknowledging that these molecular weights may not be anticipated, asserts the alternative position that La Combe teaches that the molecular weight of the polymer may be varied by various techniques, solvents, or chain terminating agents. On this ground the Examiner posits that claim 10 would then be rendered obvious to one of ordinary skill in the art.

Applicants respectfully disagree. As discussed in more detail above, there is no disclosure, teaching, or suggestion in La Combe of a water soluble associative polymer having functionality including at least sulfonate groups, carboxylate groups, and hydrophobes associative with one another. More specifically, there is no disclosure that the polymer includes carboxylic acid groups.

Therefore, Applicants believe that claims 1 and 10 are not anticipated by or, in the alternative, obvious in view of La Combe and respectfully request that this rejection be withdrawn.

Allowable Subject Matter

In paragraph 7 of the Office Action, the Examiner states that claims 14 - 27, 31 - 35, 37, 39 and 40 are allowable over the art of record. Applicants are grateful for the Examiner's indication of allowable subject matter.

Also, in paragraph 6 of the Office Action, the Examiner has objected to claims 12 and 13 merely as being dependent upon a rejected base claim. The Examiner states that these claims would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicants are grateful for the Examiner's indication of allowable subject matter of claims 12 and 13. Claims 12 and 13 depend directly from claim 1 and, as discussed in more detail above, Applicants believe claim 1 is demonstrated to be allowable over the art of record. Therefore, Applicants believe that claims 12 and 13 are likewise allowable without amendment.

Conclusion

In view of the foregoing remarks, Applicants believe that this application is in good and proper form for allowance, and the Examiner is respectfully requested to pass this application to issue. If, in the opinion of the Examiner, a telephone conference would further expedite the prosecution of the subject application, the Examiner is invited to call the undersigned.

Respectfully Submitted,
Benton et al.

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Dated



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